

FRIEDMAN & BRUYA, INC.**ENVIRONMENTAL CHEMISTS****Date of Report: July 13, 1993****Date Received: July 8, 1993****Project: 7238, Free Liquid Testing, PO #M29778****Date Samples Extracted: July 8, 1993****Date Extracts Analyzed: July 8, 1993****RESULTS FROM THE ANALYSIS OF THE PROCESS WATER SAMPLE
FOR TOTAL DISSOLVED METALS****Samples Processed Using Method 3005****Results Reported as $\mu\text{g/g}$ (ppm)**

| <u>Sample ID</u> | <u>Chromium</u> | <u>Copper</u> | <u>Nickel</u> | <u>Zinc</u> |
|------------------|-----------------|---------------|---------------|-------------|
| M29778 | <0.01 | 0.05 | 0.30 | 0.74 |

Quality Assurance

| | | | | |
|---------------------------|-------|-------|-------|-------|
| Blank | <0.01 | <0.01 | <0.02 | <0.02 |
| Spike Blank % Recovery | 107% | 99% | 109% | 108% |
| Spike Level | 5 | 5 | 10 | 5 |

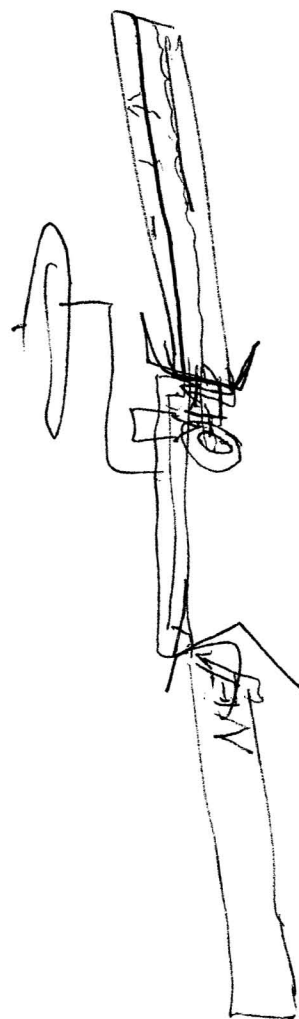
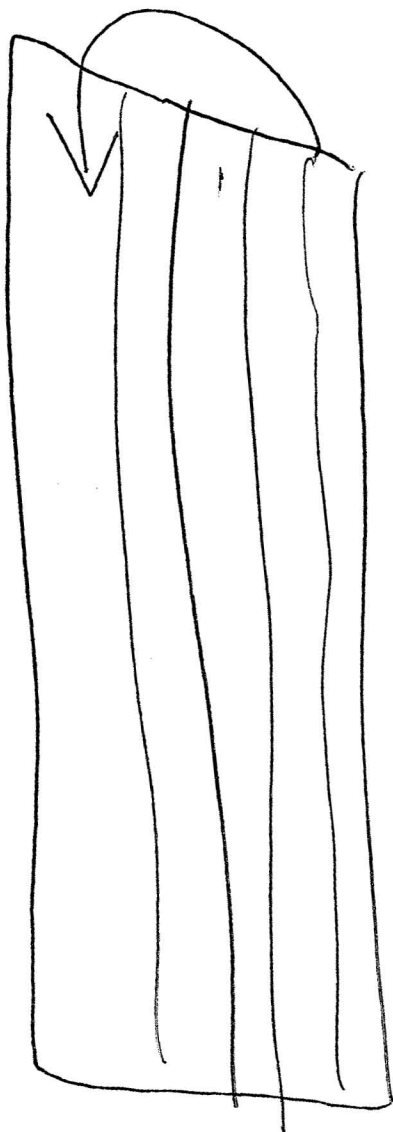
FRIEDMAN & BRUYA, INC.**ENVIRONMENTAL CHEMISTS****Date of Report: July 13, 1993****Date Received: July 8, 1993****Project: 7238, Free Liquid Testing, PO #M29778****Date Samples Extracted: July 8, 1993****Date Extracts Analyzed: July 8, 1993****RESULTS FROM THE ANALYSIS OF THE PROCESS WATER SAMPLE
FOR CHROMIUM, COPPER, NICKEL AND ZINC****Samples Processed Using Method 3050****Results Reported as $\mu\text{g/g}$ (ppm)**

| <u>Sample ID</u> | <u>Chromium</u> | <u>Copper</u> | <u>Nickel</u> | <u>Zinc</u> |
|--|-----------------|---------------|---------------|-------------|
| M29778 | 75 | 34 | 75 | 14 |
| <u>Quality Assurance</u> | | | | |
| Blank | <1.0 | <1.0 | <1.0 | <1.0 |
| M29778 (Duplicate) | 64 | 29 | 60 | 15 |
| M29778 (Matrix Spike) % Recovery | 120% | 104% | 107% | 98% |
| M29778 (Matrix Spike Duplicate) % Recovery | 84% | 85% | 91% | 110% |
| Spike Blank % Recovery | 107% | 99% | 109% | 108% |
| Spike Level | 25 | 25 | 50 | 25 |

SAMPLE CHAIN OF CUSTODY

Company ALASKAN COAST WORKS Contact GENIE HONGEN
Address 628 HARBOR ST
City, State, Zip SEATTLE WA 98134
Phone # (206) 623-5800 X218 Date 7-8-93

[illegible]AKC-0013597



FRIEDMAN & BRUYA, INC.

ENVIRONMENTAL CHEMISTS

Andrew John Friedman
James E. Bruya, Ph.D.
(206) 285-8282

3008-B 16th Avenue West
Seattle, WA 98119
FAX: (206) 283-5044

DUPLICATE COPY

July 13, 1993

INVOICE #93ACU0713-1

**Alaskan Copper Works
628 South Hanford
Seattle, WA 98134**

**RE: Project 7238, Free Liquid Testing, PO #M29778: Results of testing requested
by Gerry Thompson, Project Leader and submitted on July 8, 1993.**

| | |
|--|---------------------|
| 1 process water sample analyzed for Total Dissolved Metals @ \$65 per sample | \$ 65.00 |
| 1 process water sample analyzed for Chromium, Copper, Nickel and Zinc @ \$65 per sample | <u>65.00</u> |
| Amount Due | \$ 130.00 |

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ENVIRONMENTAL CHEMISTS

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3008-B 16th Avenue West
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FAX: (206) 283-5044

July 13, 1993

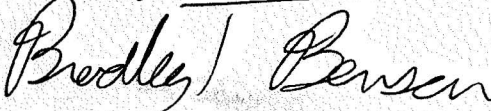
Gerry Thompson, Project Leader
Alaskan Copper Works
628 South Hanford
Seattle, WA 98134

Dear Mr. Thompson:

Enclosed are the results from the testing of material submitted on July 8, 1993 from Project 7238, Free Liquid Testing, PO #M29778.

We appreciate this opportunity to be of service to you and hope you will call if you should have any questions.

Sincerely,



Bradley T. Benson
Chemist

BTB/dp

Enclosures